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A new synthetic route to 5,6,11,12-tetraarylethynyltetracenes

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Abstract

© 2018 The Royal Society of Chemistry. A new synthetic route to 5,6,11,12-tetrakis(arylethynyl)tetracenes, π-extended rubrenes, was developed via [4 + 2] cycloadditions of dialkynylisobenzofuran and 1,4-naphthoquinone. Introduction of arylethynyl groups by double nucleophilic additions to tetracenequinone gave sterically congested (arylethynyl)tetracenes after reductive aromatization. The photophysical properties of the newly prepared π-conjugated molecules are also evaluated.

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